REMARKS

STATUS OF APPLICATION

Claims 1, 2, 4-13, and 15-41 are pending in the present application. Claims 16-41 have been withdrawn from consideration as a result of a restriction requirement.

35 USC § 103 REJECTIONS

Claims 1, 2, 4, and 5 are patentable over USPAP 2002/0032499 in view of US 4,405,677

The rejection of claims 1, 2, 4, and 5 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication 2002/0032499 to Wilson *et al.* (hereinafter referred to as "the Wilson application") in view of U.S. Patent 4,405,677 to Chen (hereinafter referred to as "the Chen patent"), is respectfully traversed for the reasons set forth hereinafter.

Claim 1 requires revising at least one parameter selected from the group consisting of a chemical concentration of an electroplating bath and an anode-cathode spacing of a deposition recipe if a measured thickness of a conductive layer is not within the predetermined tolerance. To establish a *prima facie* case of obviousness, three basic criteria must be met[1]:

> (1) There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, rather than merely in Applicants' disclosure, to modify the reference or to combine reference teachings;
>
> (2) There must be a reasonable expectation for success found in the prior art, rather than in Applicants' disclosure; and
>
> (3) The prior art references must teach or suggest all the claim limitations.

The indication, in the Office Action, that the Wilson application fails to teach revising at least one parameter selected from the group consisting of a chemical concentration of an

electroplating bath and an anode-cathode spacing, is noted with appreciation. The Chen patent discloses that a plated film 14 comprises a plurality of particles 16 disposed on a substrate 12.[2] The Chen patent further teaches that the length of the particles 16, which corresponds to the thickness of the film 14, is determined by the length of electroplating time.[3] The Office Action alleges, however, that the Chen patent discloses that the thickness of a conductive layer may be controlled by varying the chemical concentration of an electroplating bath and an anode-cathode spacing, as required by claim 1. Applicant respectfully traverses this allegation as being contrary to fact. The Chen patent is silent with regard to any electroplating parameter, other than the length of electroplating time, to control the length of the particles 16 and, thus, the thickness of the film 14.

The Chen patent teaches, however, that other electroplating parameters may be varied to control the **width** of the particles 16. **The width of the particles 16 do not correspond to the thickness of the layer 14.** Rather, the width of the particles 16 is perpendicular to the length thereof and parallel to the substrate 12.[4] Thus, the Chen patent discloses that various electroplating parameters may be used to control the width of the particles 16 but does not disclose or suggest that any electroplating parameter, other than the length of electroplating time, may be used to control the length of the particles 16 and the thickness of the film 14. Accordingly, neither the Wilson application nor the Chen patent, either singly or in combination disclose or suggest all of the limitations of claim 1 and, thus, cannot render the present invention as set forth in claim 1 obvious.

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[1] *See* MPEP 2143 and *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).
[2] *See* column 5, lines 1-2, of the Chen patent.
[3] *See* column 8, lines 14-15, and Figure 6 of the Chen patent.
[4] *See* column 8, lines 13-14, and Figure 6 of the Chen patent.

Claims 2, 4, and 5 depend from claim 1. Accordingly, the remarks provided *supra* concerning claim 1 apply equally to claims 2, 4, and 5.

Therefore, it is respectfully requested that the rejection of claims 1, 2, 4, and 5 under 35 U.S.C. § 103(a) as being unpatentable over the Wilson application in view of the Chen patent, be reconsidered and withdrawn.

Claims 6-13 and 15 are patentable over USPAP 2002/0032499 in view of US 4,405,677

The rejection of claims 6-13 and 15 under 35 U.S.C. § 103(a) as being unpatentable over the Wilson application in view of the Chen patent, is respectfully traversed for the reasons set forth hereinafter.

Claim 6 requires revising at least one parameter selected from the group consisting of a chemical concentration of an electroplating bath and an anode-cathode spacing of the deposition recipe based upon at least a calculated value representing the measured thickness of a conductive layer, if the calculated value is not within the predetermined tolerance. As discussed above concerning claim 1, neither the Wilson application nor the Chen patent, either taken singly or in combination, disclose or suggest revising such a parameter. Accordingly, the Wilson application and the Chen patent, either singly or in combination, cannot render the present invention, as set forth in claim 6, obvious.

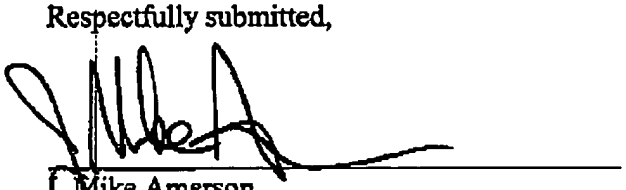
Claims 7-13 and 15 depend from claim 6. Accordingly, the remarks provided *supra* concerning claim 6 apply equally to claims 7-13 and 15.

Therefore, it is respectfully requested that the rejection of claims 6-13 and 15 under 35 U.S.C. § 103(a) as being unpatentable over the Wilson application in view of the Chen patent, be reconsidered and withdrawn.

CONCLUSION

Wherefore, in view of the foregoing amendments and remarks, this application is considered to be in condition for allowance, and an early reconsideration and a Notice of Allowance are earnestly solicited. The Examiner is invited to contact Daren C. Davis at (817) 578-8616 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,



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Date: May 9, 2003